MINING UTAH'S HERITAGE
WORKBOOK NEWS

Utah Abandoned Mine Reclamation Program **January 2005**

VISIT OUR WEB SITE AT http://ogm.utah.gov/amr

for information about Utah's natural resources and updates on current happenings.

About the Workbook

Mining Utah's Heritage was designed to address and enhance portions of the core curriculum for the fourth grade. The AMR Program staff worked with the State Office of Education in developing the workbook. The abandoned mine safety video, ***Utah's Abandoned Mines: Stay Out and Stay Alive!,*** has been totally remade and updated. It is now available in DVD format and has been mailed out to every elementary school in Utah. The DVD comes with bonus material including links to lots of web pages, and lots of teacher resources. The green "mining Utah's Heritage" workbook is found on the disc along with the answer sheet and teacher newsletter. There is also a student reader published by the State of Colorado and a teacher's guide to go with it. We have included a script for a skit illustrating the dangers of abandoned mines, and a copy of the "Bats of Utah " poster. All the files are in PDF format and can be viewed with Adobe Acrobat Reader. If you do not have the reader on your computer, it is available for free from http://www.adobe.com/ Finally, there are lots of helpful website links to take you to more information about mining and abandoned mine land reclamation.

You will need a DVD drive to read the bonus material on the DVD. If you don not have a DVD drive available, you can get all the same material form our website at http://www.ogm.utah.gov/. The extensive footage of abandoned mines and their hazards is a good way to introduce the workbook to your class!

Bats of Utah Poster Now Available

The beautiful and informational poster, *Bats of Utah* is available for distribution. Numerous agencies and organizations were involved in its development. The poster displays 13 of Utah's charismatic bat species. Food, habitat and roosting preferences are listed for each species and a distribution map shows where each species has been observed in Utah.

These beautiful 24 X 36 inch color posters are available through Project Wild in the Utah Division of Wildlife Resources. For more information and to obtain copies of the poster, contact Diana Vos, at Project Wild: (801) 538-4719.

Why is Mining Important to You?

Mining is an integral part of your everyday life and the importance of rocks and minerals are hardly recognized by the vast majority of people. In fact, the world would be a completely different place if we did not know how to mine, process and use the minerals. Without them, we would literally still be killing our dinner with a stick and freezing to death in the dark. The slogan "if it wasn't grown, it was mined" is true. On the average people consume or use 40,000 pounds of minerals every year. We must realize that in order to maintain or improve our standard of living, we must be able to locate and use mineral resources. Think about all the things you use everyday: without rocks and minerals, many of the gadgets and gizmos you enjoy using every day – including your play station, X box and MP3 players are either made of clay or plastics, both of which come from materials taken from the earth. Your car, telephone, computer, your lightweight mountain bike--all couldn't be made without raw materials that come from mining. Mining can't occur without some environmental impact. But today's mining operations are required to have permits which guarantee that all the adverse impacts will be cleaned up. If we are to live the lifestyle to which we have become accustomed, mining has to happen. The current mining industry is not the same industry that created the abandoned mines presenting a serious physical safety hazard to the public.

How is Your Day Filled with Minerals?

There is little we do that does not involve rocks and minerals and the metals we extract from them. Stop a minute and think about going through the day with minerals as a part of it. Here are just a few minerals, metals and rocks that affect our lives every day.

Aluminum is the most abundant metal element in Earth's crust. Used in making cans, containers, lightweight parts for automobiles and airplanes, sporting and electronic equipment, in building construction and in almost every modern appliance found in the home. It is also the active ingredient in many underarm deodorants.

Coal is primarily used in the generation of electricity. About 56% of all the electricity used in the United States is produced from coal-fired facilities. The rest of our electricity is produced from nuclear power plants (24%), natural gas power plants (10%), hydroelectric resources (8%) and the alternative sources (wind, solar etc.) about 2%. Coal is also a source of raw material for making heating oils, chemicals and medicines.

Copper-Primarily used in wiring to conduct electricity needed in appliances, TV's, stereos, computers, telephones, aircraft, satellites, automobiles, etc.

Gold is used in dentistry, medicine; jewelry, art, medallions, coins, and in ingots as a store of value by banks throughout the world. Because of its malleability (gold wire can be made that is thinner than a human hair) it is used in intricate circuitry for scientific and electronic instruments such as computers.

Silver-Without silver, you could not take a single picture with your camera. Besides its use in photography, silver is also used in chemistry, jewelry, in electronics because of its very high conductivity and as currency in the form of coins – usually as an alloy.

Minerals We Eat

Trona is a primary source of sodium carbonate. It is used in the making of toothpaste, in soaps and detergents, glass and paper making.. One of the most important applications is its use in baking soda and baking powder, a necessary ingredient in making bread, cookies, cakes and most other baked goods. You "eat" this rock every time you have a sandwich, a cookie or piece of cake.

Salt is used in food preservation (almost all canned and frozen food contain salt), to enhance the taste of foods and to melt the ice on streets and highways during the winter. Also used in the manufacture of many chemicals, for water treatment, papermaking, soaps and detergents and in petroleum refining.

More Information

For more information about resources you can use including field trips, websites, and videos, call or write Connie Jo Garcia, Educational Coordinator for the Utah Abandoned Mine Reclamation Program at the Division of Oil, Gas and Mining, P.O. Box 145801, Salt Lake City, Utah 84114-5801. Phone 801-538-5305, E-mail conniegarcia@utah.gov